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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PORTNER, VIRGINIA ALLEN	
ART UNIT	PAPER NUMBER
1645	
MAIL DATE	DELIVERY MODE
10/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/814,764	FIRST, ERIC R.	
	Examiner	Art Unit	
	GINNY PORTNER	1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,6,13-15,19 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,6,13-15,19 and 21* is/are rejected.

7)☒ Claim(s) *14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/16/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1, 5-6, 13-15, 19 and 21 have been amended and are under consideration.

Rejections Withdrawn

1. ***Withdrawn*** Claim 13 rejected under 35 U.S.C. 102(b) as being anticipated by Gregory C. Oliver, MD, FACS, ACS Spring Meeting 2002, slide 35 is herein withdrawn in light of the amendment of the claims to recite "a result of immobility of a patient" which is not disclosed in Oliver.

2. ***Withdrawn, Claim Rejections - 35 USC § 102*** The rejection of claims 1, 5- 6 , 15, 19 and 21 under 35 U.S.C. 102(e) as being anticipated by Dake et al (US PG-Pub 2005/0196414, effective filing date March 3, 2004) is herein withdrawn in light of the amendment of the claims to recite "a result of immobility of a patient" which is not disclosed in Dake

3. ***Withdrawn, Claim Rejections - 35 USC § 102*** The rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by Brisinda et al (1999)) is herein withdrawn in light of the amendment of the claims to recite "a result of immobility of a patient" which is not disclosed in Brisinda et al.

4. ***Withdrawn, Claim Rejections - 35 USC § 103*** The rejection of claims 1, 5-6, 14-15, 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Rebar et al (2003/0021776 A1) in view of Borodin (PG Pub 2002/0187164) and Gassner (US Pat. 6,447,787)) is herein withdrawn in light of the amendment of the claims to recite "a result of immobility of a patient" which is not described in Rebar et al.

Response to Amendment

5. The Declaration filed on July 14, 2008 under 37 CFR 1.131 has been considered but is ineffective to overcome the applied references. See rules 1.47

§ 1.47 Filing when an inventor refuses to sign or cannot be reached.

(a) If a joint inventor refuses to join in an application for patent or cannot be found or reached after diligent effort, the application may be made by the other inventor on behalf of himself or herself and the nonsigning inventor. The oath or declaration in such an application must be accompanied by a petition including proof of the pertinent facts, the fee set forth in § 1.17(g), and the last known address of the nonsigning inventor. The nonsigning inventor may subsequently join in the application by filing an oath or declaration complying with § 1.63.

(b) Whenever all of the inventors refuse to execute an application for patent, or cannot be found or reached after diligent effort, a person to whom an inventor has assigned or agreed in writing to assign the invention, or who otherwise shows sufficient proprietary interest in the matter justifying such action, may make application for patent on behalf of and as agent for all the inventors. The oath or declaration in such an application must be accompanied by a petition including proof of the pertinent facts, a showing that such action is necessary to preserve the rights of the parties or to prevent irreparable damage, the fee set forth in § 1.17(g), and the last known address of all of the inventors. An inventor may subsequently join in the application by filing an oath or declaration complying with § 1.63.

(c) The Office will send notice of the filing of the application to all inventors who have not joined in the application at the address(es) provided in the petition under this section, and publish notice of the filing of the application in the *Official Gazette*. The Office may dispense with this notice provision in a continuation or divisional application, if notice regarding the filing of the prior application was given to the nonsigning inventor(s).

Response to Arguments

6. Applicant's arguments filed July 14, 2008 have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 1, 5-6, 13-15, 19 and 21 have been considered but are moot in view of the new ground(s) of rejection.

New Grounds of Objection/ Rejection

Claim Objections

7. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claim limitation of claim 14 were incorporated into independent claim 13, from which claim 14 depends, therefore claim 14 is not further limiting of claim 13.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1,5, 13-14, 15, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gassner (US Pat. 6,447,787) in view of Gestrelius et al (US Pat. 6,503,539).

10. Gassner et al describe methods of wound healing, the wounds being skin, tendon or bone wounds (see col. 3, lines 6-7), that are unfavorable (see col. 3, line 14), and may include elective or nonelective incisions (see col. 3, lines12-13), wherein the wound healing is enhanced by administering botulinum toxin serotype A, B, C, D, E, F or G, the wound healing therapy being provided for the elimination of the tension acting on the wound, the wound being a region of inflamed skin that needs wound healing (see Gassner et al, col. 4, lines 45-48 "local

administration: col. 1, lines 44-55; col. 1, lines 64-65; col. 3, lines 5-8; col. 3, lines 40-41) the method comprising the step of:

Administering subcutaneously (see col. 4, line 46, see claim 6)), or topically (skin patch, col. 4, line 48, see claim 8)) a reduced dose of botulinum toxin locally administered to prevent negative effects on wound healing associated with repeated microtrauma, caused by continuous displacement of injured tissue (see Gassner et al, col. 1, lines 44-55), which results in reduced inflammation, prevention of wound dehiscence together with enhanced would healing (see col. 3, lines 37-42), the amount administered being a therapeutically effective amount of botulinum toxin (see col. 3, lines 66-67 and col. 4, lines 1-4) that includes dosages of 7 units and 20 units of botulinum toxin, the amounts being within the range defined by Applicant definitions for the amount to be administered to a pressure sore (between 20 and 15000 units depending on serotype, see instant Specification, page 35, paragraph 1).

Gassner et al teaches administration of botulinum toxin for wound healing, and the wound being associated with a surgical procedure but differs from the instantly claimed invention by failing to show the wound to be a pressure sore wound, and the surgical procedure to be debridment of the pressure sore, and the area of the pressure sore to be the buttocks or heel of the subject.

Gestrelius et al (US Pat. 6,503,539) teaches bed sores and pressure sores to be a wound produced by being in bed (immobility in bed) or pressure (see'539, col. 2, lines 30-38), and teaches the importance of surgically debriding the necrotic tissue associated with the wound in an analogous art for the purpose of providing a wound environment that allows wound healing

agents to exert their effect on fresh and vital tissue and not on dead or contaminated tissue (see '539, col. 7, lines 20-29).

It would be *prima facie* obvious to one of ordinary skill at the time the invention was made to administer the botulinum toxin of Gassner to the bed/pressure sore wound of Gestrelius et al combined with debridment of the bed/pressure sore in the method of healing skin wounds in patients with unfavorable wounds as taught by Gassner because Gassner et al teach skin wound healing is enhanced by administering botulinum toxin serotype A, B, C, D, E, F or G, the wound healing therapy being a region of inflamed skin that needs wound healing and the wounds of Gestrelius et al are skin wounds caused by immobility in bed and pressure a type of wound caused by pressure on skin. It would be expected absent, evidence to the contrary, that a debridment and administration of botulinum toxin to a bed/pressure sore would result in treatment because Gestrelius et al (US Pat. 6,503,539) teaches the importance of debriding the necrotic tissue associated with the skin wound in order to provide a wound environment that allows wound healing agents, botulinum toxin as taught by Gassner et al, to exert their effect on fresh and vital tissue and not on dead tissue or contaminated tissue (see '539, col. 7, lines 20-29).

Additionally, *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007), discloses that if a technique has been used to improve one method , and a person of ordinary skill would recognize that it would be used in similar methods in the same way, using the technique is obvious unless its application is beyond that person's skill. *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) also discloses that "The combination of familiar element according to known methods is likely to be obvious when it does no more than yield predictable results". It well known in the art to use botulinum toxin to treat skin wounds for improved

healing, as well as debriding the skin wound for obtaining improved healing, together the two references provide a solution to treating bed/pressure sores caused by immobility, in a manner that allows the wound to heal efficiently. Thus, it would be obvious to apply a known technique (debridment and administration of botulinum toxin to a wound) to a known product (botulinum toxin) to be used in a known method (treating skin wounds/bed/pressure sores) that is ready for improvement to yield predictable results.

1. Claims 1, 5- 6 , 15, 19 and 21 under 35 U.S.C. 103 (a) as being obvious over Dake et al (US PG-Pub 2005/0196414, effective filing date March 3, 2004) in view of Glassman (US Pat. 4,805,605)

2. Dake et al teaches and shows a method of administering a botulinum toxin to the skin or epithelium of a subject comprising:

Topically ("[0013] Topical application of botulinum toxin would provide for a safer and more desirable treatment alternative due to the painless nature of application, the larger treatment surface area that can be covered, the ability to formulate a pure toxin with higher specific activity, the reduced training necessary for applying the botulinum therapeutic, the smaller doses that would be necessary to produce the desired effect, and the lack of a requirement for large wells of toxin to reach a therapeutic clinical result. An effective means for transdermal delivery of botulinum toxin, as well as an effective means for administering botulinum toxin to treat or prevent a number of conditions that does not require injection is thus highly desirable. "

Applying to the buttocks, lower back (claim 71, 61, respectively), feet (see claim 69) of the subject or to a portion thereof; or applying to the skin or epithelium of the subject botulinum toxin (independent claim 51) for the purpose of achieving a desired biologic effect (claim 54), the biological effect including improvement of wound healing (see claim 126), associated with movement disorders (see claim 133).

Instant claim 21: The dosage per treatment encompasses the dosage claimed by Applicant, which would be an amount with the claimed functional characteristic of being an amount that will not paralyze a muscle: [0058] Most preferably, the compositions are administered by or under the direction of a physician or other health care professional. They may be administered in a single treatment or in a series of periodic treatments over time. **For transdermal delivery** of botulinum toxin for the purposes mentioned above, a composition as described above is applied topically to the skin at a location or locations where the effect is desired. In embodiments were an aqueous botulinum toxin/carrier solution is applied directly to the skin, it is preferable to cover the treated area (e.g., with Cetaphil.RTM. moisturizer) or occlude the treated area with a barrier (e.g., Telfa), in order to prevent the solution from drying out, which would lead to a decrease in toxin activity. Because of its nature, most preferably the amount of botulinum toxin applied should be applied with care, at an application rate and frequency of application that will produce the desired result without producing any adverse or undesired results. Accordingly, for instance, topical compositions of the invention should be applied **at a rate of from about 1U to about 20,000U,** preferably from about 1U to about 10,000U botulinum toxin per cm.sup.2 of skin surface. Higher dosages within these ranges could preferably be employed in conjunction with controlled release materials, for instance, or allowed a shorter dwell time on the skin prior to removal.

Dake et al teaches wounds of the buttocks, skin, feet or a part thereof, and administration of botulinum toxin to the skin or epidermidis wounds for wound healing (US PG-Pub 2005/0196414) but differs from the instantly claimed invention by failing to show the skin wounds of the buttocks and/or feet to be pressure sores caused by immobility.

Glassman teaches patients with pressure sores of their heels in an analogous art to show pressure injury due to immobility and excessive pressure to skin (see brief summary text).

It would be *prima facie* obvious to one of ordinary skill at the time the invention was made to administer the botulinum toxin of Dake to the pressure wound of the patient of Glassman in the method of healing skin wounds in patients as taught by Dake et al because Dake et al teach skin wound healing is enhanced by administering botulinum toxin serotype A, B, C, D, E, F or G, and the wounds of Glassman et al are skin wounds of the patient's heel caused by immobility and excessive pressure. It would be expected absent evidence to the contrary, that administration of botulinum toxin to the heel pressure sore of Glassman would result in treatment because Dake et al teach botulinum toxin when applied to the skin/epithelium wounds of a heel or buttocks, provides for improved wound healing (claim 126, Dake et al).

Additionally, *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007), discloses that if a technique has been used to improve one method , and a person of ordinary skill would recognize that it would be used in similar methods in the same way, using the technique is obvious unless its application is beyond that person's skill. *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) also discloses that "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results". It well known in the art to use botulinum toxin to treat skin wounds for improved healing, together the two references provide a solution to treating wounds/bed/pressure sores caused by immobility, in a manner that allows the wound to heal efficiently. Thus, it would be obvious to apply a known technique (administration of botulinum toxin to a skin wound of a foot, or buttocks) of a patient with a wound caused by immobility/pressure sore of the same or

equivalent region of the skin, to be used in a known method (treating skin wounds) that is ready for improvement to yield predictable results.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GINNY PORTNER whose telephone number is (571)272-0862. The examiner can normally be reached on flextime, but usually M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisors, Shanon Foley or Robert Mondesi, can be reached on 571-272-0898 or 571-272-0956, respectively. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ginny Portner/
Examiner, Art Unit 1645
October 10, 2008

/Mark Navarro/
Primary Examiner, Art Unit 1645